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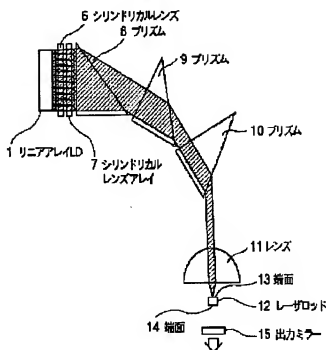
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APPLICANT : NEC CORP;

INVENTOR : MUKOHARA KATSUHARU;

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TITLE : SOLID LASER DEVICE EXCITED BY SEMICONDUCTOR LASER



ABSTRACT : PROBLEM TO BE SOLVED: To focus laser light into a smaller circular spot and to improve energy efficiency, by making laser light diverged from the light-emitting stripes of a linear array semiconductor parallel light in the vertical direction and in the parallel direction by a cylindrical lens array.

SOLUTION: Laser light diverged from a plurality of light-emitting stripes of a linear array semiconductor LD1 is emitted in nearly parallel in the vertical direction and in the parallel direction via the micro lens parts of a cylindrical lens 6 and a cylindrical lens array 7. Prisms 8, 9, 10 gradually reduce the width of the parallel laser light in the parallel direction. A lens 11 focuses the laser light from the prism 10, which is of the same size in the vertical direction and in the parallel direction, into a truly circular and projects it on the one end surface 13 of a laser rod 12 to excite the end surface 13. The end surface 13 and an output mirror 15 form a resonator and the output mirror 15 emits laser light.

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